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(54) Title: HIGHLY PURE METALLIC NANO-POWDERS AND THEIR PRODUCTION

(57) Abstract: The present invention discloses a novel method for the production of metallic nano-powder. This cost-effective, simple process is customized for a full-scale production of metallic nano-powders containing a first metal, and comprising the following of forming an alloy comprising said first metal and at least one soluble metal; applying first thermal treatment in the manner homogenized alloy is obtained; applying a cold work to the homogenized alloy so thin strips are obtained; applying a second thermal treatment to the alloy until a phase composition of predetermined characteristics is obtained; subjecting the said alloy to a leaching agent adapted to effectively leach out the least one soluble metal; filtering and washing the powder; washing the powder; drying the powder; coating the powder with chemicals; and then de-agglomerating the coated powder. The present invention also discloses a cost-effective and highly pure metallic powder produced by the method defined above.

INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B22F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 214 644 A (OLIN CORP) 18 March 1987 (1987-03-18)	1
Y	example 1	2-29, 34-38
Y	EP 0 761 348 A (ULTRAFINE TECHN LTD) 12 March 1997 (1997-03-12) page 3, line 33 – line 39; claims 1,6-12,14-16; example 1	2-29, 34-38
A	US 6 277 895 B1 (LI GUOHUI ET AL) 21 August 2001 (2001-08-21) claim 1	21
A	US 5 476 535 A (KHASIN ERNST) 19 December 1995 (1995-12-19) cited in the application claims 1-4,12,13,20	1

Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Information on patent family members

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